



NEW PROTECTIVE EYEWEAR

Soldiers engaged in combat operations and training exercises run a high risk of damaging their eyesight. Sixteen percent of coalition casualties are attributed to eye injuries. Flying shrapnel from enemy weapon blasts is the most dangerous threat to eyes, but many other hazards threaten eye safety—sand, dust, debris (from helicopters, high winds, or overpressure), flash fires, and lasers. But reports from coalition Soldiers indicate that the new Army protective eyewear has protected their eyes from shrapnel, time and time again.

During the past few years, the US Army has adopted several new types of commercial protective eyewear. Until recently, the choice was limited to the sun, wind, and dust goggles (SWDG); the ballistic/laser protective spectacles (BLPS); and the special protective eyewear, cylindrical system (SPECS) protection. But new eyewear choices are now available as commercial, off-the-shelf items that have passed the Army testing criteria. These items are issued to deploying Soldiers through the rapid fielding initiative (RFI) or can be ordered by a unit through the normal supply channels.

The new eyewear is broken into two categories—spectacles and goggles. According to test criteria, spectacles are required to stop a 5.8-grain fragment traveling at 640 feet per second and goggles are required to stop a 17-grain fragment traveling at 550 feet per second (approximately twice the energy impact as the spectacle). Although some approved spectacles may also meet the goggle requirement, armor troops performing platform missions should choose from the list of approved goggles to provide the appropriate level of protection from fragments, sun, wind, and dust. Refer to <http://www.peosoldier.army.mil/index.php?section=product> for an updated commercial-eyewear list. The list is published by the Program Manager—Clothing and Individual Equipment (PM-CIE) and provides information for ordering new eyewear.

Although these new items provide excellent ballistic protection, none of them provide eye protection from laser hazards. If a mission requires laser eye protection, you must wear the SWDG, BLPS, or SPECS (with laser lenses). For Soldiers requiring prescription spectacles, the Uvex XC™ with a prescription lens carrier (PLC), the ESS ICE 2™ with a PLC, and the Revision Sawfly II™ with a PLC are authorized for use as alternatives to the BLPS.

The ESS land operations goggle can be worn by Soldiers who require prescription eyeglasses and those who do not. This goggle will fit over Army-issued eyeglasses, and one size fits all. The kit includes a rubber frame with a foam backing to wick away moisture and provide increased comfort during long periods of use. Foam-covered vent holes allow for ventilation, reduce fogging, and keep dust particles out. The kit also includes an antireflective sleeve that reduces glint when the goggles are not in use.

The ESS low-profile, night vision goggle is for Soldiers who do not need prescription eyeglasses. This goggle fits closer to the face, is compatible with other night vision goggles, and one size fits all. The kit can be ordered in three frame colors—black, olive drab, or desert tan. The goggle backing is made of rubber, which makes a closer fit to the face. A thin fleece backing is currently being evaluated at Fort Knox, Kentucky, and may provide improved comfort when wearing the goggles in very cold weather. Foam-covered vent holes and an antireflective sleeve are also features on this goggle. Outrigger clips on the strap allow for helmet compatibility without breaking the face seal.

The ESS vehicle operations goggle has a filtration system that provides protection against excessive airborne debris (dust) for Soldiers in vehicles traveling at high speeds. The vehicle operations goggle is designed to fit over most eyeglasses, and one size fits all. The frame has a foam backing that wicks away moisture and an antireflective sleeve to reduce glint.

The Arena FlakJak™ goggle is designed for Soldiers who do not wear eyeglasses. The frame has a foam backing that fits to the face and wicks away moisture. This goggle consists of a molded frame with ventilation to allow air to flow through, minimizing fogging. It also has an antireflective sleeve to reduce glint, and one size fits all.

All goggle kits come with two ballistic protective lenses—one clear and one tinted. These lenses are made with antisccratch and antifogging coatings. Both lenses protect the eyes from ultraviolet rays.

Protecting a Soldier's eyesight is a powerful argument for wearing protective eyewear during combat operations and training exercises. Units may order authorized commercial eyewear by using the national stock number (NSN) and submitting a funded military standard requisitioning and issue procedures (MILSTRIP) request through normal supply channels to the Defense Logistics Agency, Defense Supply Center Philadelphia. If you need additional information on protective eyewear, contact Mr. Larry Hasty by e-mail at <larry.hasty@knox.army.mil> or call DSN 464-3662 or commercial (502) 624-3662; Mr. Myron Pross (PM-CIE) by e-mail at <MyronPross@dla.mil> or call DSN 444-2510 or commercial (215) 737-2510; or Mr. Frank Cole at e-mail <frank.cole@logsa.redstone.army.mil> or call DSN 645-9907 or commercial (256) 955-9907. 📞📧

Authorized Spectacles	NSN
Wiley-X SG-1 Spectacle Kit	4240-01-504-0994
Clear-Ballistic Replacement Lens	4240-01-504-5326
Green Smoke-Ballistic (Sunglass) Replacement Lens	4240-01-504-5312
Elastic Strap Replacement	4240-01-504-5754
Replacement Frame (includes temples and strap)	4240-01-504-6524
Replacement Temples	4240-01-504-6474
Uvex XC Spectacle Kit	4240-01-516-5361
Uvex XC Spectacle Clear Assembly	4240-01-516-3460
Uvex XC Spectacle Gray Assembly	4240-01-516-3452
Uvex XC Spectacle Clear Replacement Lens, Antifog Coating (pack of 10 each)	4240-01-516-3469
Uvex XC Spectacle Gray Replacement Lens, Antifog Coating (pack of 10 each)	4240-01-516-3473
Uvex XC Spectacle Replacement Carrying Case (Black)	4240-01-516-3444
Uvex XC Spectacle Prescription Lens Carrier	4240-01-516-5342
Pyramex Venture II Clear Spectacles	4240-01-500-6174
Pyramex Venture II Gray Spectacles	4240-01-500-6173

Authorized Spectacles	NSN
Oakley SI M Frame Kit (Faceshield, Industrial)	4240-01-525-3095
Oakley SI M Frame Strike Clear Replacement Lens	4240-01-525-7555
Oakley SI M Frame Strike Gray Replacement Lens	4240-01-525-7554
Oakley SI M Frame Replacement Storage Case	4240-01-525-7561
Oakley SI M Frame Micro Bags	4240-01-525-3109
Eye Safety Systems (ESS) Interchangeable Component Eyeshield (ICE) 2 Kit	4240-01-525-5085
ESS ICE2 Clear Replacement Lens	4240-01-525-4819
ESS ICE2 Smoke Gray Replacement Lens	4240-01-525-5098
ESS ICE2 Replacement Frame	4240-01-525-5095
ESS ICE2 Replacement Carrying Pouch	4240-01-518-9838
ESS ICE2 Replacement Fog Repellent Cloth	4240-01-525-5107
ESS ICE2 Replacement Snap-On Neck Leash	4240-01-525-4777
ESS ICE 2 Prescription Insert	4240-01-525-4784

Authorized Spectacles	NSN
Wiley X PT-1 Spectacles Kit	4240-01-510-7853
Wiley X PT-1 Single Lens System (Clear)	4240-01-510-7848
Wiley X PT-1 Single Lens System (Smoke Green)	4240-01-510-7847
Revision Sawfly USA Military Kit, Size Regular Kit	4240-01-527-4051
Revision Sawfly USA Military Kit, Size Large Kit	4240-01-527-4018
Clear Replacement Shield with Nosepiece Size Regular	4240-01-527-4052
Clear Replacement Shield with Nosepiece Size Large	4240-01-527-4061
Solar Replacement Shield with Nosepiece Size Regular	4240-01-527-4053
Solar Replacement Shield with Nosepiece Size Large	4240-01-527-4063
Retention Head Strap Replacement	4240-01-527-4067
Prescription Carrier Insert	4240-01-527-4056
Anti-Fog, Anti-Static Lens Cleaning Spray – 1 Fluid Ounce Bottle	4240-01-527-4068
Body Specs PISTOL Kit	4240-01-526-9637
Body Specs PISTOL Clear Replacement Lens	4240-01-526-9642
Body Specs PISTOL Body Specs PISTOL Neutral Slate Replacement Lens	4240-01-526-9645
Body Specs PISTOL Replacement Frame (includes temples and strap)	4240-01-526-9653
Body Specs PISTOL Replacement Elastic Strap	4240-01-526-9656
Body Specs PISTOL Replacement Nosepiece	4240-01-526-9714
Body Specs PISTOL Replacement Case	4240-01-526-9663

Authorized Goggles	NSN
ESS Land Operations Goggles Kit (with antireflective sleeve)	4240-01-504-0052
ESS Land Operations Goggles Clear Ballistic Replacement Lens	4210-01-492-5722
ESS Land Operations Goggles Smoke Gray Ballistic Replacement Lens	4210-01-492-5725
ESS Vehicle Operations Goggles Kit (with antireflective sleeve)	4240-01-525-5101
ESS Vehicle Operations Goggles Clear Ballistic Replacement Lens (same as for ESS Land Ops Goggles)	4210-01-492-5722
ESS Vehicle Operations Goggles Smoke Gray Ballistic Replacement Lens (same as for ESS Land Ops Goggles)	4210-01-492-5725
ESS Profile NVG Goggles (Black Frame) Kit	4240-01-504-6222
ESS Profile NVG Goggles (Olive Drab Frame) Kit	4240-01-504-5706
ESS Profile NVG Goggles (Desert Tan Frame) Kit	4240-01-504-5727
ESS Profile NVG Goggles Clear Ballistic Replacement Lens	4240-01-504-5641
ESS Profile NVG Goggles Smoke Gray Ballistic Replacement Lens	4240-01-504-6143
Arena FlakJak Goggle Kit	4240-01-527-4076
Arena Goggle Kit Clear Ballistic Replacement Lenses	4240-01-527-4079
Arena Goggle Kit Smoke Gray Ballistic Replacement Lens	4240-01-527-4082
Arena Goggle Kit Replacement Pouch, Goggle/Universal/With One Lens Cloth Carrier/Khaki	4240-01-527-4078
Arena Goggle Kit Replacement Strap, FlakJak/Desert Tan	4240-01-527-4085

Mr. Hasty is the Soldier project officer assigned to the Science and Technology Division, Unit of Action Maneuver Battle Lab, US Army Armor Center, Fort Knox, Kentucky.

A special thanks to Mr. Cole for his contribution to this article.

Personal Protective Equipment Survey



The Army has launched a study on the effectiveness of personal protective equipment (PPE). To gather information, the US Army Infantry Center at Fort Benning, Georgia, has developed a helmet and body armor survey to gather information on incidents involving PPE. The data collected in the survey will be used by the Department of Defense to develop improved Soldier PPE. The survey, located at <<https://www.infantry.army.mil/surveys/ppe/ppe.htm>>, should take less than 10 minutes to complete.